

CLAIMS ALLOWED IN US PATENT APPLICATION NO. 09/052614

1. A method of improving mucus clearance comprising administering to the respiratory tract of a patient in need of such treatment an effective amount of dextran of effective molecular weight.
2. The method of claim 1 wherein the polysaccharide is dextran.
3. The method of claim 1 wherein the dextran is administered in admixture with a pharmaceutically acceptable diluent or carrier.
4. The method of claim 3 wherein the diluent is sodium chloride or ringer solution.
5. The method of claim 1 wherein the dextran is administered to the respiratory tract topically or by aerosol.
6. The method of claim 1 wherein the dextran has a weight average molecular weight of less than 500,000.
7. The method of claim 1 wherein the dextran has a molecular weight range of about 360 to about 4000.
8. The method of claim 2 wherein the dextran is present in the respiratory secretion at a concentration of about 4 mg/ml to about 40 mg/ml.
9. A method of treating lung disease associated with impaired mucus clearance comprising administering to the respiratory tract of a patient in need of such treatment an effective amount of dextran of effective molecular weight.
10. The method of claim 9 wherein the lung disease is cystic fibrosis, chronic bronchitis, bronchiectasis or bronchial asthma.
11. The method of claim 10 wherein the polysaccharide is dextran.
12. A method of improving mucus clearability in a patient having cystic fibrosis comprising administering to the respiratory tract of a patient in need of such treatment an effective amount of dextran of effective molecular weight.
13. The method of claim 1 further comprising the step of assessing liquification of secretions of said patient following treatment.
14. The method of claim 1 further comprising the step of assessing viscosity and elasticity of sputum of said patient following the treatment.
15. The method of claim 6 wherein the dextran has a weight average molecular weight of less than 250,000.

16. The method of claim 1 wherein the dextran has a molecular weight in the range of 4,000 or less.

17. A method of improving mucus clearance comprising administering to the respiratory tract of a patient in need of such treatment an effective amount of dextran having a molecular weight of from about 360 to about 4000.

18. The method according to claim 17, wherein the dextran is present in the respiratory secretion at a concentration of about 4 mg/ml to about 40 mg/ml.

19. A method of treating lung disease associated with impaired mucus clearance comprising administering to the respiratory tract of a patient in need of such treatment an effective amount of dextran having a molecular weight of from about 360 to about 4000.

20. The method according to claim 19, wherein the dextran is present in the respiratory secretion at a concentration of about 4 mg/ml to about 40 mg/ml.

21. A method of improving mucus clearability in a patient having cystic fibrosis comprising administering to the respiratory tract of a patient in need of such treatment an effective amount of dextran having a molecular weight of from about 360 to about 4000.

22. The method according to claim 21, wherein the dextran is present in the respiratory secretion at a concentration of about 4 mg/ml to about 40 mg/ml.

23. The method according to claim 1, wherein the dextran is present in the respiratory secretion at a concentration of about 4 mg/ml to about 40 mg/ml.

24. The method according to claim 9, wherein the dextran is present in the respiratory secretion at a concentration of about 4 mg/ml to about 40 mg/ml.

25. The method according to claim 12, wherein the dextran is present in the respiratory secretion at a concentration of about 4 mg/ml to about 40 mg/ml.